

an polar solvent in an amount between 30 and 99 percent by weight of the total composition.

27. (New) The composition of claim 26, further comprising a flavoring agent in an amount of between 0.1 and 10 percent by weight of the total composition.

28. (New) The composition of claim 27, wherein the polar solvent is present in an amount between 37 and 98 percent by weight of the total composition, the active compound is present in an amount between 0.005 and 55 percent by weight of the total composition, and the flavoring agent is present in an amount between 0.5 and 8 percent by weight of the total composition.

29. (New) The composition of claim 28, wherein the polar solvent is present in an amount between 59 and 97 percent by weight of the total composition, the active compound is present in an amount between 0.01 and 40 percent by weight of the total composition, and the flavoring agent is present in an amount between 0.75 and 7.5 percent by weight of the total composition.

30. (New) The composition of claim 26, wherein the polar solvent is selected from the group consisting of polyethylene glycols having a molecular weight between 400 and 1000, C<sub>2</sub> to C<sub>8</sub> mono- and poly-alcohols, and C<sub>7</sub> to C<sub>18</sub> alcohols of linear or branched configuration.

31. (New) The composition of claim 26, wherein the polar solvent comprises aqueous polyethylene glycol.

32. (New) The composition of claim 26, wherein the polar solvent comprises aqueous ethanol.

33. (New) The composition of claim 26, wherein the active compound is selected from the group consisting of cyclosporin, clozapine, zidevudine, erythromycin, ondansetron,

cimetidine, phenytoin, carboprost thromethamine, valerin, and pharmaceutically acceptable salts thereof.

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34. (New) The composition of claim 27, wherein the flavoring agent is selected from the group consisting of synthetic or natural oil of peppermint, oil of spearmint, citrus oil, fruit flavors, sweeteners, and mixtures thereof.

35. (New) The composition of claim 27, wherein the polar solvent is present in an amount between 75 and 85 percent by weight of the total composition, the active compound is cyclosporin present in an amount between 15 and 25 percent by weight of the total composition, and the flavoring agent is present in an amount between 0.1 and 5 percent by weight of the total composition.

36. (New) The composition of claim 27, wherein the polar solvent is present in an amount between 19 and 90 percent by weight of the total composition, the active compound is ondansetron hydrochloride present in an amount between 2.5 and 15 percent by weight of the total composition, and the flavoring agent is present in an amount between 1 and 10 percent by weight of the total composition.

37. (New) A method of administering a pharmacologically active compound to a mammal comprising spraying the oral mucosa of said mammal with the composition of claim 26.

38. (New) The method of claim 37, wherein the amount of the spray is predetermined.

39. (New) A buccal spray composition for transmucosal administration of a pharmacologically active compound comprising:

an active compound in an amount of between 0.1 and 25 percent by weight of the total composition selected from the group consisting of biologically active peptides, central nervous system acting amines, sulfonyl ureas, antibiotics, antifungals, sleep inducers,

antiasthmatics, antiemetics, antivirals, histamine H-2 receptor antagonists, barbiturates, prostoglandins, and bronchial dilators selected from terbutaline and theophyline;

a polar solvent in an amount between 10 and 97 percent by weight of the total composition; and

a propellant in an amount between 2 and 10 percent by weight of the total composition, wherein said propellant is a C<sub>3</sub> to C<sub>8</sub> hydrocarbon of linear or branched configuration.

40. (New) The composition of claim 39, further comprising a flavoring agent in an amount between 0.05 and 10 percent by weight of the total composition.

41. (New) The composition of claim 40, wherein the polar solvent is present in an amount between 20 and 97 percent by weight of the total composition, the active compound is present in an amount between 0.1 and 15 percent by weight of the total composition, the propellant is present in an amount between 2 and 10 percent by weight of the composition, and the flavoring agent is present in an amount between 0.1 and 5 percent by weight of the total composition.

42. (New) The composition of claim 41, wherein the polar solvent is present in an amount between 25 and 97 percent by weight of the total composition, the active compound is present in an amount between 0.2 and 25 percent by weight of the total composition, the propellant is present in an amount between 2 and 10 percent by weight of the composition, and the flavoring agent is present in an amount between 0.1 and 2.5 percent by weight of the total composition.

43. (New) The composition of claim 39, wherein the polar solvent is selected from the group consisting of polyethyleneglycols having a molecular weight between 400 and 1000 g/mol, C<sub>2</sub> to C<sub>8</sub> mono- and poly-alcohols, and C<sub>7</sub> to C<sub>18</sub> alcohols of linear or branched configuration.

44. (New) The composition of claim 39, wherein the polar solvent comprises aqueous polyethylene glycol.

45. (New) The composition of claim 39, wherein the polar solvent comprises aqueous ethanol.

46. (New) The composition of claim 39, wherein the active compound is selected from the group consisting of cyclosporin, clozapine, zidevudine, erythromycin, ondansetron, cimetidine, phenytoin, carboprost thromethamine, valerin, and pharmaceutically acceptable salts thereof.

47. (New) The composition of claim 40, wherein the flavoring agent is selected from the group consisting of synthetic or natural oil of peppermint, oil of spearmint, citrus oil, fruit flavors, sweeteners, and mixtures thereof.

48. (New) The composition of claim 40, wherein the polar solvent is present in an amount between 55 and 72 percent by weight of the total composition, the active compound is cyclosporin present in an amount between 15 and 25 percent by weight of the total composition, the propellant is present in an amount between 2 and 10 percent by weight of the composition, and the flavoring agent is present in an amount between 0.1 and 5 percent by weight of the total composition.

49. (New) The composition of claim 40, wherein the polar solvent is present in an amount between 19 and 90 percent by weight of the total composition, the active compound is ondansetron hydrochloride present in an amount between 2.5 and 15 percent by weight of the total composition, the propellant is present in an amount between 2 and 10 percent by weight of the composition, and the flavoring agent is present in an amount between 1 and 10 percent by weight of the total composition.

50. (New) The composition of claim 39, wherein the propellant is selected from the group consisting of propane, *N*-butane, *iso*-butane, *N*-pentane, *iso*-pentane, *neo*-pentane, and mixtures thereof.

51. (New) A method of administering a pharmacologically active compound to a mammal comprising spraying the oral mucosa of said mammal with the composition of claim 39.

52. (New) The method of claim 51, wherein the amount of the spray is predetermined.

53. (New) A propellant free buccal spray composition for transmucosal administration of a pharmacologically active compound comprising:

an active compound in an amount between 0.005 and 55 percent by weight of the total composition selected from the group consisting of biologically active peptides, central nervous system acting amines, sulfonyl ureas, antibiotics, antifungals, sleep inducers, antiasthmatics, antiemetics, antivirals, histamine H-2 receptor antagonists, barbiturates, prostoglandins, and bronchial dilators selected from terbutaline and theophylline; and

a non-polar solvent in an amount between 30 and 99 percent by weight of the total composition.

54. (New) The composition of claim 53, further comprising a flavoring agent in an amount between 0.1 and 10 percent by weight of the total composition.

55. (New) The composition of claim 54, wherein the non-polar solvent is present in an amount between 69 and 99 percent by weight of the total composition, the active compound is clozapine in an amount from between 0.5 and 30 percent by weight of the total composition, and the flavoring agent is present in an amount between 0.1 and 5 percent by weight of the total composition.

56. (New) The composition of claim 53, wherein the active compound is selected from the group consisting of cyclosporin, clozapine, zidevudine, erythromycin, ondansetron, cimetidine, phenytoin, carboprost thromethamine, valerin, and pharmaceutically acceptable salts thereof.

57. (New) The composition of claim 54, wherein the flavoring agent is selected from the group consisting of synthetic or natural oil of peppermint, oil of spearmint, citrus oil, fruit flavors, sweeteners, and mixtures thereof.

58. (New) The composition of claim 53, wherein the solvent is selected from the group consisting of ( $C_2$ - $C_{24}$ ) fatty acid ( $C_2$ - $C_6$ ) esters,  $C_7$ - $C_{18}$  hydrocarbons of linear or branched configuration,  $C_2$ - $C_6$  alkanoyl esters, and triglycerides of  $C_2$ - $C_6$  carboxylic acids.

59. (New) The composition of claim 53, wherein the solvent is miglyol.

60. (New) A method of administering a pharmacologically active compound to a mammal comprising spraying the oral mucosa of said mammal with the composition of claim 53.

61. (New) The method of claim 60, wherein the amount of the spray is predetermined.

62. (New) A buccal spray composition for transmucosal administration of a pharmacologically active compound comprising:

an active compound in an amount between 0.05 and 50 percent by weight of the total composition selected from the group consisting of biologically active peptides, central nervous system acting amines, sulfonyl ureas, antibiotics, antifungals, sleep inducers, antiasthmatics, antiemetics, antivirals, histamine H-2 receptor antagonists, barbiturates, prostoglandins, and bronchial dilators selected from terbutaline and theophylline; and

a non-polar solvent in an amount between 20 and 85 percent by weight of the total composition; and

a propellant in an amount between 5 and 70 percent by weight of the total composition, wherein said propellant is a C<sub>3</sub> to C<sub>8</sub> hydrocarbon of linear or branched configuration.

63. (New) The composition of claim 62, further comprising a flavoring agent in an amount of between 0.1 and 10 percent by weight of the total composition.

64. (New) The composition of claim 62, wherein the active compound is selected from the group consisting of cyclosporin, clozapine, zidevudine, erythromycin, ondansetron, cimetidine, phenytoin, carboprost thromethamine, valerin, and pharmaceutically acceptable salts thereof.

65. (New) The composition of claim 63, wherein the flavoring agent is selected from the group consisting of synthetic or natural oil of peppermint, oil of spearmint, citrus oil, fruit flavors, sweeteners, and mixtures thereof.

66. (New) The composition of claim 62, wherein the propellant is present in an amount between 5 and 70 percent by weight of the total composition, the non-polar solvent is present in an amount between 25 and 85 percent by weight of the total composition, the active compound is present in an amount from between 0.1 and 40 percent by weight of the total composition, and the flavoring agent is present in an amount between 1 and 8 percent by weight of the total composition.

67. (New) The composition of claim 66, wherein the propellant is present in an amount between 20 and 70 percent by weight of the total composition, the non-polar solvent is present in an amount between 30 and 75 percent by weight of the total composition, the active compound is present in an amount from between 0.25 and 35 percent by weight of the total composition, and the flavoring agent is present in an amount between 2 and 7.5 percent by weight of the total composition.

68. (New) The composition of claim 62, wherein the propellant is selected from the group consisting of propane, *n*-butane, *iso*-butane, *n*-pentane, *iso*-pentane, *neo*-pentane, and mixtures thereof.

69. (New) The composition of claim 68, wherein the propellant is *n*-butane or *iso*-butane and has a water content of not more than 0.2 percent and a concentration of oxidizing agents, reducing agents, Lewis acids, and Lewis bases of less than 0.1 percent.

70. (New) The composition of claim 62, wherein the solvent is selected from the group consisting of (C<sub>2</sub>-C<sub>24</sub>) fatty acid (C<sub>2</sub>-C<sub>6</sub>) esters, C<sub>7</sub>-C<sub>18</sub> hydrocarbons of linear or branched configuration, C<sub>2</sub>-C<sub>6</sub> alkanoyl esters, and triglycerides of C<sub>2</sub>-C<sub>6</sub> carboxylic acids.

71. (New) The composition of claim 62, wherein the solvent is miglyol.

72. (New) The composition of claim 62, wherein the propellant is present in an amount between 15 and 70 percent by weight of the total composition, the non-polar solvent is present in an amount between 20 and 85 percent by weight of the total composition, the active compound is clozapine in an amount between 0.5 and 30 percent by weight of the total composition, and the flavoring agent is present in an amount between 1 and 5 percent by weight of the total composition.

73. (New) The composition of claim 62, wherein the propellant is present in an amount between 15 and 70 percent by weight of the total composition, the non-polar solvent is present in an amount between 20 and 85 percent by weight of the total composition, the active compound is zidovudine in an amount between 25 and 35 percent by weight of the total composition, and the flavoring agent is present in an amount between 1 and 5 percent by weight of the total composition.

74. (New) The composition of claim 62, wherein the propellant is present in an amount between 5 and 60 percent by weight of the total composition, the non-polar solvent is present in an amount between 20 and 85 percent by weight of the total composition, the



active compound is carboprost in an amount between 0.5 and 5 percent by weight of the total composition, and the flavoring agent is present in an amount between 0.1 and 10 percent by weight of the total composition.

75. (New) The composition of claim 62, wherein the propellant is present in an amount between 5 and 60 percent by weight of the total composition, the non-polar solvent is present in an amount between 50 and 85 percent by weight of the total composition, the active compound is terbutaline in an amount between 0.5 and 6 percent by weight of the total composition, and the flavoring agent is present in an amount between 0.01 and 10 percent by weight of the total composition.

76. (New) A method of administering a pharmacologically active compound to a mammal comprising spraying the oral mucosa of the mammal with the composition of claim 62.

77. (New) The method of claim 76, wherein the amount of the spray is predetermined.

78. (New) A buccal spray composition for transmucosal administration of a pharmacologically active compound comprising:

an active compound in an amount between 0.1 and 25 percent by weight of the total composition selected from the group consisting of antihistamines, alkaloids, hormones, benzodiazepines and analgesics;

a polar solvent in an amount between 10 and 97 percent by weight of the total composition; and

propellant in an amount between 2 and 10 percent by weight of the total composition, wherein said propellant is a C<sub>3</sub> to C<sub>8</sub> hydrocarbon of linear or branched configuration.

79. (New) A buccal spray composition for transmucosal administration of a pharmacologically active compound comprising:

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an active compound in an amount between 0.005 and 55 percent by weight of the total composition selected from the group consisting of antihistamines, alkaloids, hormones, benzodiazepines, and narcotic analgesics;

a non-polar solvent in an amount between 30 and 99 percent by weight of the total composition.

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